

# Legalising smokeless tobacco and/or oral nicotine products: some implications for population health

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The Government has repealed measures in the *Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Act* (SERPA)<sup>1</sup> that would have decreased the number of outlets permitted to sell the world's most dangerous consumer product, reduced tobacco's addictiveness and protected young people from a product that kills two thirds of its long-term users.<sup>2</sup> Strong public support for the SERPA measures<sup>3</sup> calls into question the Government's mandate for the repeal, which came as an unwelcome surprise to many.

Nonetheless, Associate Minister of Health Casey Costello has affirmed the Government's commitment to the Smokefree Aotearoa 2025 goal and “*achieving the less than 5 percent smoke-free targets across all populations*” (emphasis added).<sup>4</sup> However, neither she nor Health Minister Dr Shane Reti have outlined how they plan to achieve the Smokefree 2025 goal. Indeed, notes from Associate Minister Casey Costello's office argued additional measures were “*unnecessary given New Zealand is likely to be Smokefree by no later than 2027*” (emphasis added).<sup>5</sup> That statement is not consistent with modelling, which suggests that, even under an optimistic scenario, smoking prevalence would not fall below 5% among Māori women until around 2042.<sup>6</sup>

Associate Minister Casey Costello has advised that she “*will soon be taking a package of measures to Cabinet to increase the tools available that will actually help quit smoking.*”<sup>4</sup> Analysis of the minister's leaked notes reveals her emphasis on novel products containing nicotine;<sup>5</sup> her notes state: “*New Zealand smokers should have access to the widest range of smokefree products possible to achieve our 2025 objective.*”<sup>5</sup> They outline how proposed changes will “*bring into our regulatory framework nicotine containing pouches.*”<sup>5</sup> The planned approach appears to fulfil a clause of the National–New Zealand First coalition agreement, to “*reform the regulation of vaping, smokeless tobacco and oral nicotine products.*”

Aotearoa New Zealand does not currently allow the sale of smokeless tobacco or oral nicotine products (ONP), with the exception of Medsafe-approved nicotine replacement therapy (NRT), such as nicotine gum, lozenges and sprays. These NRT products have gone through the rigorous safety approval process for medicines required by the *Medicines Act 1981* and been available for several decades. The rationale for introducing new smokeless tobacco and/or ONPs rests on beliefs these pose fewer risks than smoked tobacco and provide people who smoke and wish to quit with “choice”. The minister's plans to expand the nicotine product market by allowing new nicotine-containing products to be sold as consumer products rather than therapeutic products thus raises important questions, which we discuss below.

## What are smokeless tobacco and ONPs?

Smokeless tobacco products include chewing tobacco and tobacco pouches, or “snus”, which are made from tobacco leaves. Users place the product between their gum and lip or cheek and absorb nicotine through their oral mucosa. Snus (finely ground or chopped tobacco, generally contained in a small pouch) is a Swedish product originally developed commercially about 200 years ago and is now used widely among Swedish males.<sup>7,8</sup> Sweden exports snus products, although many jurisdictions—including European Union (EU) countries—disallow their sale. The United States of America (USA) began manufacturing snus in the late 1990s; prevalence studies suggest snus has risen in popularity in recent years.<sup>9</sup> By contrast, chewing tobacco has long been part of the tobacco market in the USA and is also legal in the EU; unlike snus, it causes copious salivation, requiring users to spit out excess.

Since about 2009, a new generation of tobacco-free ONPs, including nicotine pouches and

dissolvable “pearls”, has emerged. These products contain nicotine, either synthetic or extracted from tobacco, though not tobacco itself. As a result, the harm profile of these products is likely to differ from tobacco products, though recent analyses detected carcinogens (tobacco-specific nitrosamines) in nicotine pouches that are present in tobacco leaf.<sup>10</sup>

Tobacco companies have seen tobacco-free ONPs as an opportunity to diversify their product range and now own major ONP brands: British American Tobacco owns Lyft and Velo, while Swedish Match, a subsidiary of Philip Morris International, owns ZYN. Like vaping products, tobacco-free ONPs are addictive and come in varied appealing flavours and, as we discuss below, their design and packaging resonate strongly with young people.<sup>11</sup> Prevalence studies suggest tobacco-free nicotine products have risen in popularity internationally;<sup>9</sup> while overall prevalence in some countries remains low, researchers have recommended close monitoring of future usage patterns.<sup>12</sup>

### **Can smokeless tobacco and ONPs help people stop smoking?**

The health risks of tobacco, such as cancer, vary according to the tobacco product used. While snus is considered less physically harmful than cigarette smoking,<sup>13</sup> its role in helping people stop smoking is less clear. For example, a recent meta-analysis of randomised controlled trials concluded snus use did not significantly increase smoking cessation when compared to nicotine-free conditions.<sup>14</sup> Furthermore, this review outlined concerns about the quality of longitudinal and cross-sectional studies that reported associations between snus use and smoking cessation.<sup>14</sup> These findings highlight the need for independent and robust research assessing the role smokeless tobacco may play in supporting movement away from smoked tobacco products.

The recency of tobacco-free ONPs means evidence is even more limited. Pharmacokinetic studies suggest tobacco-free ONPs may reduce nicotine cravings<sup>15,16</sup> and a pilot study found ONPs may reduce the average number of cigarettes smoked per day, though were less effective than electronic cigarettes (vapes).<sup>17</sup> However, adequately powered, robust and independent randomised controlled trials are needed to assess whether ONPs lead to improved smoking cessation or maladaptive outcomes, such as sustained dual

use. Prospective studies of young people who do not smoke are urgently required to assess how ONPs affect physical and mental health, and subsequent smoked tobacco use. Emerging USA research suggests oral nicotine pouch use is motivated by available flavours and is associated with nicotine addiction and other adverse outcomes.<sup>18</sup>

### **How could ONPs appeal to young people who do not smoke?**

Aotearoa New Zealand’s experience with vaping, which has harmed the wellbeing of young people,<sup>19,20</sup> makes it imperative that ONP regulations protect young people, who have a right to be free from the burden nicotine addiction imposes.<sup>21</sup> Strategy documents from British American Tobacco outline their “poly use” and “additive” marketing strategy, which aims to offer nicotine products for all occasions and user groups.<sup>22</sup> The strategy shows that tobacco companies view new nicotine products as an opportunity to recruit new customers, rather than to help people switch from smoking; young people are both the most profitable and most vulnerable group to recruit.

Promotion of ONPs (including via online “influencers”) indicates these will have high appeal to young people—particularly if, as tobacco companies have lobbied,<sup>23</sup> these are made widely available. International promotions feature ONPs’ “tobacco-free” status;<sup>24</sup> studies have found this message reduces risk perceptions, which in turn increases young people’s susceptibility to trial these products.<sup>25</sup> Furthermore, analyses of marketing claims show these emphasise “freedom”, a concept antithetical to the risk of nicotine addiction, which product use poses.<sup>26</sup> Furthermore, advertising promotes use of these products in settings that do not allow smoking or vaping.<sup>27</sup>

While prospective studies are required to examine associations between advertising themes and exposure, usage susceptibility, trial and regular use, our experience with vaping supports a precautionary approach. Inadequate regulation and enforcement have seen Aotearoa New Zealand achieve the dubious distinction of having the highest rates of youth vaping in the world.<sup>28</sup> Among young people who vape daily, the proportion that has never smoked increased from 20% in 2019 to 40% in 2023.<sup>29</sup> Young Māori have borne a heavier burden from vaping addiction than their NZ European/Other peers, which

suggests poor regulation of new nicotine products risks compounding health inequities. Evidence that ONPs are already being sold in Aotearoa New Zealand and marketed using youthful actors and appeals (e.g., inviting people to experience the “Zyngle”, i.e., tingling usage sensation),<sup>26,30</sup> suggests regulators are already failing to keep pace

with market developments. Ongoing uncertainty about these products’ safety and efficacy, the lack of a clear rationale for their introduction (given the existence of approved oral NRT products) and international evidence of rising ONP use among young people indicate rapid action is required to avoid another regulatory failure.

**COMPETING INTERESTS**

None to declare.

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**REFERENCES**

1. *Smokefree Environments and Regulated Products (Smoked Tobacco) Amendment Act 2023* (NZ).
2. Banks E, Joshy G, Weber MF, et al. Tobacco smoking and all-cause mortality in a large Australian cohort study: findings from a mature epidemic with current low smoking prevalence. *BMC Med.* 2015;13:38. doi: 10.1186/s12916-015-0281-z.
3. Talbot Mills Research. Smokefree laws: Survey report [Internet]. Health Coalition Aotearoa; 2023 [cited 2024 Apr 1]. Available from: <https://www.healthcoalition.org.nz/wp-content/uploads/2023/12/Smokefree-survey-results-Dec-23.pdf>.
4. New Zealand Parliament. Tuesday, 27 February 2024 (continued on Wednesday, 28 February 2024) – Volume 773 [Internet]. Wellington: Hansard; 2024 [cited 2024 Apr 1]. Available from: [https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansD\\_20240227\\_20240228](https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansD_20240227_20240228).
5. Office of the Associate Minister of Health Casey Costello. Costello-office-notes. Wellington, New Zealand: Associate Minister of Health; 2024.
6. van der Deen FS, Ikeda T, Cobiac L, et al. Projecting future smoking prevalence to 2025 and beyond in New Zealand using smoking prevalence data from the 2013 Census. *NZ Med J.* 2014;127(1406):71-79.
7. Digard H, Errington G, Richter A, McAdam K. Patterns and behaviors of snus consumption in Sweden. *Nicotine Tob Res.* 2009;11(10):1175-81. doi: 10.1093/ntr/ntp118.
8. O'Connor R, Schneller LM, Felicione NJ, et al. Evolution of tobacco products: recent history and future directions. *Tob Control.* 2022;31(2):175-82. doi: 10.1136/tobaccocontrol-2021-056544.
9. Delnevo CD, Hrywna M, Miller Lo EJ, Wackowski OA. Examining Market Trends in Smokeless Tobacco Sales in the United States: 2011–2019. *Nicotine Tob Res.* 2021;23(8):1420-24. doi: 10.1093/ntr/ntaa239.
10. Mallock N, Schulz T, Malke S, et al. Levels of nicotine and tobacco-specific nitrosamines in oral nicotine pouches. *Tob Control.* 2024;33(2):193-99. doi: 10.1136/tc-2022-057280.
11. Gaiha SM, Lin C, Lempert LK, Halpern-Felsher B. Use, marketing, and appeal of oral nicotine products among adolescents, young adults, and adults. *Addict Behav.* 2023;140:107632. doi: 10.1016/j.addbeh.2023.107632.
12. Tattan-Birch H, Jackson SE, Dockrell M, Brown J. Tobacco-free Nicotine Pouch Use in Great Britain: A Representative Population Survey 2020-2021. *Nicotine Tob Res.* 2022;24(9):1509-12. doi: 10.1093/ntr/ntac099.
13. Nutt DJ, Phillips LD, Balfour D, et al. Estimating the harms of nicotine-containing products using the MCDA approach. *Eur Addict Res.* 2014;20(5):218-25. doi: 10.1159/000360220.
14. Stjepanović D, Phartiyal P, Leung J, et al. Efficacy of smokeless tobacco for smoking cessation: a systematic review and meta-analysis. *Tob Control.* 2023;32(6):757-68. doi: 10.1136/tobaccocontrol-2021-057019.
15. Keller-Hamilton B, Alalwan MA, Curran H, et al. Evaluating the effects of nicotine concentration on the appeal and nicotine delivery of oral nicotine pouches among rural and Appalachian adults who smoke cigarettes: A randomized cross-over study. *Addiction.* 2024;119(3):464-75. doi: 10.1111/add.16355.
16. Liu J, Rensch J, Wang J, et al. Nicotine pharmacokinetics and subjective responses after using nicotine pouches with different nicotine levels compared to combustible cigarettes and moist smokeless tobacco in adult tobacco users. *Psychopharmacology (Berl).* 2022;239(9):2863-73. doi: 10.1007/s00213-022-06172-y.
17. Avila JC, Maglalang DD, Nollen N, et al. Using pod based e-cigarettes and nicotine pouches to reduce harm for adults with low socioeconomic status who smoke: A pilot randomized controlled trial. *Nicotine Tob Res.* 2024 Mar 6;ntae047. doi: 10.1093/ntr/ntae047.
18. Dowd AN, Thrul J, Czaplicki L, et al. A Cross-Sectional Survey on Oral Nicotine Pouches: Characterizing Use-Motives, Topography, Dependence Levels, and Adverse Events. *Nicotine Tobacco Res* 2023;26(2):245-49. doi: 10.1093/ntr/ntad179.

19. Graham DeMello A, Sloan O, Frost K, Hoek J.. Young people's progression to and experiences of addiction to nicotine vaping products: A qualitative analysis from Aotearoa New Zealand. Paper presented at: Society for Research into Nicotine and Tobacco Oceania Conference; 2024; University of Queensland, Brisbane, Australia.
20. Ball J, Pettie M, Poasa L, Hoek J. "It's the first thing you think about when you wake up and it's the last thing you think about when you go to sleep": Nicotine vaping among New Zealand adolescents. APSAD Conference; 2023; Adelaide, Australia. *Drug and Alcohol Review*; 2024. p. S34-S35. Available from: <https://onlinelibrary.wiley.com/doi/10.1111/dar.13749>.
21. Fenton E, Robertson L, Hoek J. Ethics and ENDS. *Tob Control*. 2023;32:e243-e246. doi: 10.1136/tobaccocontrol-2021-057078.
22. Robertson L, Hoek J, Gilmore A, et al. Regulating vaping and new nicotine products: Are tobacco companies' goals aligned with public health objectives [Internet]. Public Health Communication Centre Aotearoa; 2020 [cited 2024 Apr 1]. Available from: <https://www.phcc.org.nz/briefing/regulating-vaping-and-new-nicotine-products-are-tobacco-companies-goals-aligned-public>.
23. British American Tobacco (New Zealand) Limited. Proposed Smokefree Aotearoa 2025 Action Plan Submission 2021.
24. Czaplicki L, Patel M, Rahman B, et al. Oral nicotine marketing claims in direct-mail advertising. *Tob Control*. 2022;31(5):663-66. doi: 10.1136/tobaccocontrol-2020-056446.
25. Morean ME, Bold KW, Davis DR, et al. "Tobacco-free" Nicotine Pouches: Risk Perceptions, Awareness, Susceptibility, and Use Among Young Adults in the United States. *Nicotine Tob Res*. 2023;25(1):143-50. doi: 10.1093/ntr/ntac204.
26. Duan Z, Henriksen L, Vallone D, et al. Nicotine pouch marketing strategies in the USA: an analysis of Zyn, On! and Velo. *Tob Control*. 2024;33(2):154-63. doi: 10.1136/tc-2022-057360.
27. Ling PM, Hrywna M, Talbot EM, Lewis MJ. Tobacco-Derived Nicotine Pouch Brands and Marketing Messages on Internet and Traditional Media: Content Analysis. *JMIR Form Res*. 2023;7:e39146. doi: 10.2196/39146.
28. Hammond D, Reid J, Burkhalter R. Trends in youth & young adult vaping: Findings from the ITC Youth and Young Adult Tobacco and Vaping Survey [Unpublished Presentation]. Waterloo, Canada: ITC Youth and Young Adult Tobacco & Vaping study; 2024.
29. Hoek J, Ball J, Gendall P. Smoking and vaping among 14 to 15 year olds: Government action urgently needed [Internet]. Public Health Communications Centre Aotearoa; 2024 [cited 2024 Apr 1]. Available from: <https://www.phcc.org.nz/briefing/smoking-and-vaping-among-14-15-year-olds-government-action-urgently-needed>.
30. ZYN. ZYNNZ [Internet]. 2024 [cited 2024 Feb 15]. Available from: <https://zynnz.co.nz/>.